



Applicant : Joseph Dale Helmick
App. No. : 09/878,811
Filed : 06/10/2001
Title : Uncertain and complex system teaches neural networks

Grp./A.U. : 2122
Examiner : Mark Powell

Honorable Commissioner for Patents
Washington DC

RECEIVED

FEB 04 2002

Group 2100

AMENDMENT

Honorable Commissioner:

With certificate of mailing and in good faith before the first office action, please amend the above identified application as follows:

In the Other References

Please add the following reference with the following:

W. Kahan, Branch Cuts for Complex Elementary Functions, in The State of the Art in Numerical Analysis eds. A. Iserles & M. J. D. Powell, Clarendon Press, Oxford, 1987.

In the second reference please replace the word *Engineers* in the title with the following:

(Amended) -- *Engineering* --

In the Summary of the Invention

Please add the word "yod" before "group" on page 3 in line 20:

(Amended) complex yod group of symmetric and descending objects with one embedded --

Please add "/detection" in the second to last line on page 3:

(Amended) -- addition. Last, propositional functions are constructed from the extraction /detection of numerical sequences --

Please add "/detection" on page 4 line 2:

(Amended) -- the mechanism of extraction /detection (Δ) is because the angle and length ratios are in pairs just as --

Please add “/detect” on page 4 line 3:

(Amended) -- the special angle seed matrices extract /detect digit pairs from e and π , $(2)^{1/2}$ and $(3)^{1/2}$. Since --

In the Detailed Description of the Invention

Please add the following paragraph after the first paragraph in the Detailed Description of the Invention on page 4 as follows:

Sub E 10
A2 (Amended) -- The operational function, $dL/d\theta$ where L is LengthOfString for π , e , $(2)^{1/2}$ or $(3)^{1/2}$ decimal expansions and θ is the 16 special angles converted from degrees to radians, is expressed as a quotient of integers where the numerator is in terms of length of decimal position and the denominator in terms of degrees/radians on the unit circle mod 360. --

Please add “/detected” on page 6, paragraph 4, line 5 as follows:

(Amended) -- where the matching digits were extracted /detected from, extend to infinity defined as $1/0$ at the --

Please add “ \pm ” on page 6, paragraph 4, line 6 as follows:

(Amended) -- origin and are symbolized by the non-Euclidean $\pm 0^\circ - 90^\circ - 90^\circ$ intermediary structure. The --

Please add “/detected” on page 7 line 4 as follows:

(Amended) -- r_n and for each extracted /detected digit position, a term from the matching special angle sequence --

Please add “ \pm ” on page 7 paragraph 1 line 3 as follows:

(Amended) -- origin. Implementation of a non-Euclidean metric $\pm 0^\circ - 90^\circ - 90^\circ$ triangle (FIG. 1) is an --

Please add “ \pm ” on page 7 paragraph 2 line 1 as follows:

(Amended) -- The non-Euclidean $\pm 0^\circ - 90^\circ - 90^\circ$ metric, which extends to infinity at the vertex, is an --

Please add “ \pm ” on page 7 paragraph 2 line 2 as follows:

(Amended) -- intermediate form of the Δ Hilbert isosceles triangle. In the $\pm 0^\circ - 90^\circ - 90^\circ$ metric, however, --